



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
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DEC 22 2011

Naval Facilities Engineering Command, Pacific Division
Attention: EV21, MV-22/H-1 EIS Project Manager
258 Makalapa Drive, Suite 100
Pearl Harbor, HI 96860-3134

Subject: Draft Environmental Impact Statement for the Basing of MV-22 and H-1 Aircraft in Support of III MEF Elements in Hawaii (CEQ # 20110379)

The U.S. Environmental Protection Agency (EPA) is providing comments on the Draft Environmental Impact Statement (DEIS) for the Basing of MV-22 and H-1 Aircraft in Support of III MEF Elements in Hawaii. Our comments are provided pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act.

The preferred alternative would construct more than \$500 million dollars in new facilities at Marine Corps Base Hawaii Kaneohe Bay by 2018. This presents an ideal opportunity to build facilities that meet or exceed the Marine Corps Commandant and Secretary of the Navy's ambitious energy goals, such as making 50% of Navy and Marine Corps installations net-zero energy users by 2020. We urge the Navy and Marines to demonstrate their leadership in net-zero energy and renewable energy generation on this project.

We have rated the DEIS as *Environmental Concerns -Insufficient Information (EC-2)* (please see the enclosed "Summary of EPA Rating Definitions"). In our enclosed detailed comments we raise concerns about Greenhouse Gas Emissions, Water Resources, Air Quality, Noise, and Solid Waste.

We appreciate the opportunity to review this DEIS. When the Final EIS is released for public review, please send one hard copy and one electronic copy to the address above (mail code: CED-2). If you have questions, please contact Tom Kelly, lead NEPA reviewer for this project, at (415) 972-3856 or kelly.thomasp@epa.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "Kathleen Martyn Goforth".

Kathleen Martyn Goforth, Manager
Environmental Review Office
Communities and Ecosystems Division

Enclosures: EPA's Detailed Comments
Summary of EPA's Rating Definitions

Greenhouse Gas (GHG) Emissions

Facilities

The new facilities built as part of the action alternatives would meet the Leadership in Energy and Environmental Design silver certification (p. 2-50) and include rooftop solar power generation (p. 2-17), unless the later requirement is waived. In Section 5, Cumulative Impacts, the Draft Environmental Impact Statement (DEIS) refers to a goal from *U.S. Marine Corps Expeditionary Energy Strategy* (March 2011):

“By 2020, we will increase the amount of alternative energy consumed at installations to 50 percent of total energy consumption. Through the combination of aggressive demand reduction and on-installation renewable energy production, we will transform half of our installations into net-zero energy consumers.”

This goal is also consistent with one of the energy goals from the Secretary of the Navy¹ and further described in *Department of the Navy's Energy Program for Security and Independence*². If such an ambitious goal is to be seriously undertaken, new facilities constructed as part of this project need to be designed for net-zero energy use; however, the DEIS does not mention this. We realize renewable energy facilities could be located at other facilities, or in a separate NEPA analysis. If this is the case, the EIS should discuss it as a cumulative impact.

Recommendations:

The Final EIS (FEIS) should specify that all new facilities constructed as part of this project will have net-zero energy use.

The FEIS should maximize renewable energy generation through the use of roof-top solar energy generation and other appropriate technologies.

Biofuel

The DEIS cites Executive Order 13514, Federal Leadership in Environmental, Energy, and Economic Performance, which states, “Where appropriate, the target shall exclude direct emissions from excluded vehicles and equipment (i.e., military aircraft, tactical vehicles).” While the Executive Order excludes military aircraft, the Secretary of the Navy has not excluded aircraft from his energy goals. As outlined in *Department of the Navy's Energy Program for Security and Independence*, a short term Navy goal is to “Certify aircraft and ship systems to operate on a 50/50 alternative fuel blend.” In the case of the MV-22, the Navy has already tested a 50/50 blend of aviation fuel (JP-5) and camelina³.

¹ Department of the Navy's Energy Goals, <http://www.navy.mil/features/Navy_EnergySecurity.pdf>

² Department of the Navy's Energy Program for Security and Independence, <http://greenfleet.dodlive.mil/files/2010/04/Naval_Energy_Strategic_Roadmap_100710.pdf>

³ See <http://www.navair.navy.mil/index.cfm?fuseaction=home.PrintNewsStory&id=4730>

Recommendation:

The FEIS should discuss plans to use biofuel for MV-22 and H-1 aircraft, and provide a best estimate of GHG mitigation based on future biofuel use.

Estimating Emissions

CEQ in its Draft Guidance⁴ suggested that if a project would be reasonably anticipated to cause direct emissions of 25,000 metric tons of carbon dioxide equivalent emissions (MTCO₂E) or more per year, a quantitative and qualitative assessment may be meaningful to decision-makers and the public. The DEIS does include a GHG emission estimate for new aircraft of 74,000 MTCO₂E (p. 5-20), but it does not include emissions from construction, new equipment (e.g. tractors and tows) or new operations such as maintenance shops. The concern about quantifying emissions is not limited to GHGs; we have also discussed the same concern for other air emissions in our comments on Air Quality.

Recommendation:

The FEIS should include a thorough evaluation of GHG emission sources.

Water Resources

Surface Water Quality

The DEIS does not identify impaired water bodies, also called Clean Water Act Section 303(d) listed water bodies, so it also does not evaluate the possible impacts of the project to these waters or the applicability of Total Maximum Daily Load requirements. Of particular concern are the two unpaved landing zones with high erosion potential, Schofield Barracks East Range and Kawaihoa Training Area (p. 4-60).

New construction for the action alternatives will include areas with a high potential for contaminated surface water, such as the new landing area, hangar aprons and parking lots. Runoff from these areas may include oils, exhaust particulates and fuel. While the DEIS discusses low impact development (LID), it does not clarify treatment processes that will remove contaminants prior to discharge.

Recommendation:

The FEIS should describe impaired water bodies that could be impacted by the project and describe a system that will treat contaminated surface water before discharge.

Low Impact Development

We note the DEIS includes compliance with “the Energy Independence and Security Act (EISA) and UFC 3-210-10⁵, Low Impact Development (LID), which call for projects to maintain storm water discharge to predevelopment hydrology conditions to the maximum extent technically feasible, and for application of BMPs for water quality (UFC 2010).” The DEIS does not provide detail on methods to achieve this goal. EPA understands that this work may be left to contractors

⁴ Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions, February 18, 2010.

⁵ United Facilities Criteria (UFC), Low Impact Development, 15 November 2010, <http://www.wbdg.org/ccb/DOD/UFC/ufc_3_210_10.pdf>.

designing facilities, but further discussion would be informative. For example, an initial step identified in the Unified Facilities Criteria LID process is the design objective. The design objective would specify 95th percentile storm event, and the percentage of water volume to be retained or infiltrated.

Recommendation:

The FEIS and Record of Decision (ROD) should include commitments necessary to ensure compliance with LID requirements.

Water Conservation

The DEIS mentions the goal to reduce water consumption by 2% per year through 2020 (p. 5-38). Water conserving fixtures, such as those recommended by EPA's Watersense Program (<http://www.epa.gov/watersense>), can ensure that new facilities built as a part of this project achieve the stated goals.

Recommendation:

The FEIS should include contract specifications or additional detail for water conservation fixtures and strategies at new facilities.

Air Quality

The DEIS includes emissions estimates for emissions from new aircraft in Section 3.4.3, but does not include emissions from construction or operations. The action alternatives would include new equipment (e.g., tractors and tows) and new operations such as maintenance shops and corrosion control.

Recommendations:

The FEIS should discuss and quantify construction and operating air emissions.

The FEIS should also describe operations that will require Clean Air Act permits from the Hawaii Department of Health.

Noise

We are pleased to see the discussion of noise effects on children's learning and sleep disturbance, discussed in Appendix D (D.3.7.1), but these discussion were not summarized in the DEIS. Appendix D includes a range of classroom noise criteria (D-3/119 and 120). It questions the legitimacy of the criteria to address aircraft noise impacts without acknowledging the impact of aircraft noise on learning. The Federal Interagency Committee on Aviation Noise states⁶, "Recent research, which confirms conclusions from the 1970s, shows learning decreases in reading when outdoor-noise LA_{eq} is 65 dB or higher (Stansfeld, 2000)." In light of Executive Order 13045, Protection of Children from Environmental Risks and Health Risks, we support specific analysis of noise impacts to schools.

We also note that Appendix D of the DEIS states that the Federal Interagency Committee on Aircraft Noise supports the use of ANSI S12.9-2008 to predict awakenings, but stops short of calculating awakenings.

⁶ Findings of the FICAN PILOT Study on the Relationship Between Aircraft Noise Reduction and Changes in Standardized Test Scores, July 2007.

Recommendations:

To make a valid comparison of school noise level with the school noise criteria of Table C-2 (in Appendix D), the FEIS should adopt the Federal Aviation Administration calculation for noise during a school day (e.g. 8:00 a.m. to 3:00 p.m. on weekdays).

The FEIS should calculate awakenings for the baseline, no action alternative and action alternatives, and summarize the results in the body of the document.

Solid Waste

The Proposed Action and Alternatives briefly describes solid waste management in Section 2.6.1.7. It states, "To the extent practicable, recycling and reuse is encouraged over the disposal of C&D [Construction and Debris] waste." Marine Corps Base Hawaii Kaneohe Bay diverts nearly two-thirds of the waste generated on-base (p. 3-147); however C&D waste differs from office, housing, and maintenance shop waste. The Navy should plan in advance to segregate materials, so it can be recycled, composted and otherwise properly managed. Stone, rock, brick and concrete can be rubblized and used in mixing new concrete. Wood waste can be chipped or shredded and composted or used as a groundcover. We encourage the exploration of additional management options through EPA's Deconstruction webpage⁷. It includes a variety of resources to reduce the costs of construction debris disposal through proper management. Landfill space is a critical concern for many Pacific Islands. While Oahu may have 10 to 15 years of capacity in its C&D Landfill (p. 5-36), a large project such the new facilities at Marine Corps Base Hawaii Kaneohe Bay could quickly reduce available capacity.

Recommendations:

The FEIS should include conditions placed on contractors to ensure demolition waste is segregated, and specify the use of segregated waste in new construction where possible.

The FEIS should estimate the total quantities of segregated C&D waste streams.

⁷ See <http://www.epa.gov/osw/conservation/rrr/imr/cdm/reuse.htm>

SUMMARY OF EPA RATING DEFINITIONS*

This rating system was developed as a means to summarize the U.S. Environmental Protection Agency's (EPA) level of concern with a proposed action. The ratings are a combination of alphabetical categories for evaluation of the environmental impacts of the proposal and numerical categories for evaluation of the adequacy of the Environmental Impact Statement (EIS).

ENVIRONMENTAL IMPACT OF THE ACTION

"LO" (Lack of Objections)

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

"EC" (Environmental Concerns)

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

"EO" (Environmental Objections)

The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

"EU" (Environmentally Unsatisfactory)

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

ADEQUACY OF THE IMPACT STATEMENT

"Category 1" (Adequate)

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

"Category 2" (Insufficient Information)

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analysed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

"Category 3" (Inadequate)

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analysed in the draft EIS, which should be analysed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From EPA Manual 1640, Policy and Procedures for the Review of Federal Actions Impacting the Environment.

